

Subject **Physiology**
Grade **11-12**

Learning Objectives

Students will know:

- Macroscopic and microscopic structures of osseous (bone) tissue.

Students will be able to:

- Identify various tissue and cell types present in human osseous tissue through an interactive computer review game.

Science Standards

State

- B2.1d: Describe how, through cell division, cells can become specialized for specific function.
- B2.3d: Identify the general functions of the major systems of the human body.
- B2.3f: Explain how human organ systems maintain human health.

National

- Select science content and adapt and design curricula to meet the interests, knowledge, understanding, abilities, and experiences of students.
- Select teaching and assessment strategies that support the development of student understanding and nurture a community of science learners.
- Use multiple methods and systematically gather data about student understanding and ability.
- Guide students in self-assessment.
- Make the available science tools, materials, media, and technological resources accessible to students.

ISTE

- Students practice responsible use of technology systems, information, and software.
- Students use technology tools to enhance learning, increase productivity, and promote creativity.

Required Materials

- Computer (one student per computer ideal, but may have up to three students per computer)
- Power point handout for additional note-taking
- Writing implement

Classroom Organization

- Computer lab, media center or classroom based lesson. One to three students per computer.
- Lesson may be modified to teacher centered if computers are not accessible. A LCD projector plus laptop computer would be necessary.
- Lesson is designed to take 15-20 minutes; longer or shorter time frames may be necessary, depending on the learner.
- Power point show must be downloaded to each computer prior to activity. Create an icon for the activity so students may click on the game right from the desktop.

Procedure

1. Click on icon for **Building a Skeleton** power point show.
2. Follow the interactive game, making sure to answer every question.
3. Add notes to self on the handout provided for any questions that are missed. *How can you avoid that mistake on the test?*
4. Use this handout plus lecture notes to study for the test.

Analysis

Students will play this game as a review for the test. While the game consists of mainly content vocabulary, that information may be used to field more critical thinking questions present on the test (such as case studies).